

REMARKS

Claims 1-7 have been now been rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Prior Art (Figure 1) in view of Niboshi et al. (U.S. Patent 6,198,215). Applicants respectfully disagree with the Examiner's position and have amended independent claim 1 to more fully distinguish Niboshi, as discussed below.

Specifically, neither the Applicants' Prior Art (Figure 1) nor Niboshi teach or suggest an anti-reflective layer having a Ti or TiN film layered with a silicon oxynitride (SiON) film to form the anti-reflective layer as is recited in amended claim 1.

Applicants also point out that there is a difference in reflectivity between the TiN/SiON anti-reflective film of the Applicants' invention and the (Mo:X)ON(X=Si, W, Ta, Ni)/Ni, Al, Mo anti-light-reflective film taught in Niboshi.

Further, with respect to claim 6, the Examiner states that the refractive index of a metallic film and a silicon oxynitride film as taught by Niboshi is in the range of 1.8 to 3.2. However, the ranges as set forth in the Niboshi reference are clearly directed to (Mo: X)ON(X=Si, W, Ta, Ni)/Ni (i.e. a molybdenum oxynitride film) and not to a silicon oxynitride film (SiON), which is contained in the anti-reflective layer of Applicants' invention and of amended claim 1. Thus, the Applicants' anti-reflective layer achieves the refractive index of 1.7-1.9 using a silicon oxynitride film (SiON), whereas the cited Niboshi reference achieves its refractive index of 1.8-3.2 using a completely different compound comprising molybdenum nitride (Mo:X)ON(X=Si, W, Ta, Ni).

In addition, as claimed in new claim 9, the thickness of the TiN or Ti metal film of the Applicants' invention is about 800 Angstrom, whereas there is

no teaching of the thickness of TiN or Ti in the Niboshi reference, because Niboshi does not teach using TiN or Ti for use in an anti-reflective film. Furthermore, the Applicants' thickness of 800 Angstrom for its metal film is much smaller than the metal film thickness suggested in Niboshi. For example, Niboshi teaches a metal film having a thickness of 300nm, which is substantially thicker than the 800 Angstrom thickness of the TiN or Ti metal film used in the Applicants' anti-reflective layer.

The Applicants also maintain that the anti-reflective layers of the Niboshi reference only discloses specific thickness and refractive indices of oxynitrides having molybdenum as an element. The Applicants' anti-reflective layer does not use molybdenum as an element of its invention.

In view of the foregoing, it is the Applicants' position that claims 1, 2, 6, 7, and newly added claims 8 and 9 are in condition for allowance.

If any further issues remain after this amendment, a telephone call to the undersigned would be appreciated.

Respectfully submitted,

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